

Notice of Allowability

Application No.

10/800,468

Examiner

David D. Le

Applicant(s)

MIZON ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 24 August 2005.
2. ☒ The allowed claim(s) is/are 1-12 and 20-24.
3. ☒ The drawings filed on 15 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>06/02/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Continuation of Substance of Interview including description of the general nature of what was discussed: Applicant's attorney authorizes examiner to amend the instant application as follows:

Claims 13-19 have been cancelled.

Claim 12, line 7, "releaseably" has been deleted.

Claim 23, line 7, "releaseably" has been deleted.

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/800,468, filed on 15 March 2004. Claims 1-24 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 06/02/04
 - Declaration and Power of Attorney, received on 07/19/04

Election/Restrictions

3. Applicant's election without traverse of Species C (Figs. 1 and 8), claims 1-12 and 20-24, in the reply filed on 24 August 2005 is acknowledged.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Philip E. Rettig, on 28 September 2005.

The application has been amended as follows:

- Claims 13-19 have been cancelled.
- Claim 12, line 7, “releaseably” has been deleted.
- Claim 23, line 7, “releaseably” has been deleted.

Allowable Subject Matter

5. Claims 1-12 and 20-24 are allowed.
6. The following is an examiner’s statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious a power transfer assembly comprising an input shaft, a first drive mechanism, a second drive mechanism, a bi-directional overrunning mode clutch, a disconnect clutch, a shift mechanism, and an actuator, as recited in claim 1; specifically, wherein the bi-directional overrunning mode clutch includes a first member supported for rotation relative to the input shaft and a second member driving the second input shaft; and, the disconnect clutch is operable in a first mode to couple the first member of the mode clutch to the input shaft and in a second mode to release the first member from coupled engagement with the input shaft.

Claim 9:

The prior art of record fails to show or render obvious a power transfer unit comprising an input driven by the powertrain, a first output for transmitting drive torque from the input to the rear driveline, a second output connected to the front driveline, a bi-directional overrunning mode clutch, a disconnect clutch, and a shift mechanism, as recited in claim 9; wherein the operational relationship between the bi-directional overrunning mode clutch and the disconnect clutch specifically includes the bi-directional overrunning mode clutch disposed between the input and the second output and the disconnect clutch operable in a 2WD mode to release the mode clutch from coupled engagement with the input shaft and a 4WD mode to couple the mode clutch to the input.

Claim 20:

The prior art of record fails to show or render obvious a motor vehicle comprising a powertrain, a primary driveline, a secondary driveline, a power transfer assembly having an input driven by the powertrain, a first drive mechanism, a second drive mechanism, a bi-directional overrunning mode clutch, a disconnect clutch, and a shift system, as recited in claim 20; wherein the operational relationship the bi-directional overrunning mode clutch and the disconnect clutch specifically includes the bi-directional overrunning mode clutch operably disposed between the input and the second drive mechanism and the disconnect clutch operable in a 2WD mode to release the mode clutch from coupled engagement with the input and in 4WD mode to couple the mode clutch to the input.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Williams (U. S. Patent No. 6,579,205) teaches a full-time transfer case with synchronized range shift and controllable bi-directional clutch as shown in Figs. 1-14.
- Williams (U. S. Patent Application Publication No. US 2004/0220010 A1) teaches a transfer case with a tri-mode bi-directional clutch assembly as shown in Figs. 1-20.
- European Patent Application No. EP 1253041 A2, teaches an on-demand four-wheel drive transfer case with controllable bi-directional clutch assembly as shown in Figs. 1-8.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ddl


ROGER PANG
PRIMARY EXAMINER
9-29-05